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Claims

1. Parking assistance for a vehicle, characterized in that the
    parking assistance permits autonomous parking or steering
    of the vehicle on a path for parking or assists a driver of
    the vehicle in a parking operation on the path for parking
    the vehicle by means of a steering torque applied to the
    steering wheel whereby the driver is guided by at least one
    artificial steering stop, preferably one or two artificial
    steering stops on the path for parking the vehicle,
    and the path for parking the vehicle is divided into an
    initial maneuvering path in the area of a parking space and
    an approach path prior to the maneuvering path.

2. Navigation module for a vehicle, in particular for a
    parking assistance according to Claim 1, characterized in
    that the path for parking the vehicle is divided into a
    maneuvering path in the area of a parking space and an
    approach path situated before the maneuvering path.

3. Method for parking a vehicle, characterized in that the
    method permits autonomous driving or steering of a vehicle
    on a path for parking or assists a driver of the vehicle in
    a parking operation in which a steering torque is applied
    to the steering wheel and at least one artificial steering
    stop, preferably one or two artificial steering stops are
    generated and in which the driver is guided by the
    artificial steering stop on the path for parking the
    vehicle and the path for parking the vehicle is divided

into a maneuvering path in the area of a parking space and an approach path prior to the maneuvering path.

4. Parking assistance, navigation module or method according to any one of Claims 1 through 3, characterized in that at least one partial area of the approach path is ascertained on the basis of one or more polynomials.

5. Parking assistance, navigation module or method according to any one of Claims 1 through 4, characterized in that a starting point of the approach path to the maneuvering path ascertained on the basis of at least one polynomial is ascertained as a function of the position of the vehicle to be parked.

6. Parking assistance, navigation module or method according to any one of Claims 1 through 5, characterized in that a starting point of the approach path ascertained on the basis of at least one polynomial is ascertained, said approach point being situated on the path for parking the vehicle, depending on the starting position on a circular path or a clothoid path prior thereto.

7. Parking assistance, navigation module or method according to any one of Claims 1 through 6, characterized in that the maneuvering path is formed by an arc of a circle.

8. Parking assistance, navigation module or method according to Claim 7,

characterized in that the arc of the circle which normally allows passing the corners is shortened, whereby the length of the arc of the circle is selected so that the front right corner of a vehicle being parked in reverse just passes by the left rear corner of an object bordering the parking space at the front.

9. Parking assistance, navigation module or method according to any one of Claims 7 or 8, characterized in that at least one clothoid path is added to the circle, which reduces deflection into the opposing driving path, and does so on the arc of the circle prior to the deflection point (in the direction of the maneuvering path).

10. Parking assistance, navigation module or method according to any one of Claims 1 through 9, characterized in that the path for the smallest possible parking space is adapted to the actual parking space by segments.

11. Parking assistance, navigation module or method according to any one of Claims 1 through 6, characterized in that navigation is provided for parking in reverse, said navigation being planned according to information about the parking space in relation to the vehicle and the path of the vehicle into the parking space.